

2000 Article Index

If you have Internet access, you can download the full version of each of these articles and Problem Clinic items by visiting www.worldofconcrete.com. Simply click the link to CONCRETE CONSTRUCTION Online and go to the magazine archives, where you can search for items by title or month of publication.

JANUARY

FEATURES

The Equipment Revolution: Profiles six pieces of equipment that changed the way contractors work with concrete: internal vibrators, concrete pumps, slipform pavers, laser-guided screeds, ride-on power trowels, and early-entry saws. (pp. 38-50)

A Clear View of Sealers: Describes the various categories of clear water repellents and gives factors to consider when choosing a product for a particular application. (pp. 53-58)

Are Moisture Tests on Target?: Presents research indicating that tests used to measure moisture-vapor-emission rates of concrete floors aren't always reliable. (pp. 61-68)

SUCCESSFUL CONTRACTING

Ten Ways to Speed Sales: Guidelines to help contractors increase sales by delivering estimates faster. (p. 31)

SOLUTIONS

Decorative Concrete: Travertine Finish (p. 71)

Concrete Perspectives: Basement Wall Cracks: No Problem? Or Signs of Trouble? (pp. 72-74)

Problem Clinic (p. 76)

- Length of Protection Period in Cold Weather
- Test Cylinders Always Needed?

TROUBLESHOOTING Blowups (p. 106)

FEBRUARY

FEATURES

Fast-Track Forming: Describes how a contractor used a combination of forming systems to quickly raise Florida's landmark Diplomat Hotel from the ruins of the old hotel. (pp. 64-71)

Stronger, Faster: A guide to prepackaged, rapid-hardening repair materials that reach design strength in just a few hours. (pp. 73-75)

Specification Report Card: A review of concrete specifications from 50 projects nationwide finds that many do not receive a passing grade. (pp. 77-84)

Steel-Free Bridge Decks Defy Corrosion: Shows how Canada is eliminating corrosion at its source by building concrete bridge decks with no internal steel reinforcement. (pp. 87-92)

Crane Quandary: A contractor evaluates the pros and cons of operating a crane on or off the floor slab to lift tilt-up panels. (pp. 95-97)

Not Gone with the Wind: A kit consisting of stay-in-place forms allows builders to quickly erect a safe room that can withstand winds of up to 250 mph. (pp. 98-99)

Lowering the Field, with Concrete: Installation of a massive concrete cutoff wall makes it possible for Ohio State University to lower its football field and increase seating. (pp. 101-103)

SUCCESSFUL CONTRACTING

Sweat the Small Stuff: Seven simple rules for handling customers competently and professionally. (p. 57)

SOLUTIONS

Concrete Basics: Isolation and Expansion Joints (pp. 104-106)

Concrete Perspectives: Composite Rebar: Bit Player or Rising Star? (pp. 108-109)

Problem Clinic (pp. 110-114)

- Cracks Around Columns
- Slip-Resistant Floors

- Removing Curing Compound
- Overlay on Flexible Substrate
- Adding Air-Entraining Admixture at the Jobsite

TROUBLESHOOTING **D-cracking (p. 186)**

MARCH

FEATURES

Decorative Explosion: Describes tools, products, and learning opportunities fueling decorative concrete's coming of age. (pp. 48-55)

Buy or Rent?: Shows how keeping good records can help you decide if it's more cost-effective to buy or rent equipment. (pp. 57-61)

Preparing for Liftoff: Baker Concrete Construction constructs a concrete launch complex at Cape Canaveral for a new generation of unmanned rockets. (pp. 62-67)

Insulating Concrete with Polystyrene Foam: Compares ICF systems made of molded and extruded polystyrene foam. (pp. 69-72)

SUCCESSFUL CONTRACTING

The Three A's: How contractors can improve ties with customers by emphasizing availability, affability, and ability. (p. 39)

SOLUTIONS

Decorative Concrete: Stencil-Finished Concrete (pp. 74-75)

Concrete Perspectives: Calcium Chloride: Limit Use in Residential Foundation Walls? (pp. 76-77)

Problem Clinic (p. 79)

- Long-Term Curling
- When to Start Curing Decorative Concrete

TROUBLESHOOTING

Exposed Reinforcing Steel (p. 98)

APRIL

FEATURES

Versatile Conveyors: Describes how truck-mounted or self-propelled conveyors can handle materials efficiently while freeing up cranes, skidsteers, and loaders. (pp. 38-43)

Keeping Laser Controls Accurate: Shows how periodic calibration of laser-leveling systems for construction equipment can help ensure precise results. (pp. 45-47)

A New Look at Water, Slump, and Shrinkage: Looks at research showing

that small increases in water or slump have little impact on drying shrinkage of concrete. (pp. 48-53)

Innovation Speeds Massive Floor Pour:

Precise planning helps a contractor place a 110,000-square-foot warehouse floor in just 22 hours. (pp. 55-58)

SUCCESSFUL CONTRACTING

Employee Pay: How Much Is Enough?:

Criteria to consider when determining how much to pay employees. (p. 33)

SOLUTIONS

Concrete Basics: Using Midrange Water Reducers (p. 59)

Concrete Perspectives: Testing Fresh Concrete: At Point of Placement or End of Chute? (pp. 61-62)

Problem Clinic (p. 63)

- Help Finding Tool
- Productivity Benefits of Flowing Concrete

TROUBLESHOOTING

Rust Staining (p. 82)

MAY

BUYERS' GUIDE

JUNE

FEATURES

Strong Medicine: Explains how fiber-reinforced polymer materials can help repair and strengthen deteriorating concrete. (pp. 40-47)

Making Foundation Forms Last: Tips for preparing and handling plywood or aluminum foundation forms to prolong their service life. (pp. 49-51)

Finishing Touch: Looks at ways contractors can combine tilt-up concrete and exterior insulation finish systems to produce a variety of architectural effects. (pp. 52-56)

The Cost of Waiting: Describes how delays in concrete setting can affect the bottom line. (pp. 59-61)

SUCCESSFUL CONTRACTING

What's Love Got to Do with It?: Explains why a loss of enthusiasm for the concrete industry is making it more difficult for contractors to recruit workers. (p. 35)

SOLUTIONS

Decorative Concrete: Preparing Surfaces for Stampable Overlays (pp. 63-64)

Concrete Perspectives: Slab Thickness Tolerances: Are They Realistic? (pp. 66-67)

Problem Clinic (p. 68)

- Correlating Compressive and Flexural Strength
- Placing Concrete on Frozen Subbase
- Decorative Overlay over Exposed Aggregate?

TROUBLESHOOTING

Fins and Offsets (p. 84)

JULY

FEATURES

The Art of Acid-Etch Staining: How-to hints for producing stained surfaces that satisfy customers. (pp. 38-47)

Finishing-Tool Primer: Tips for choosing and using the basic hand tools for flat-work finishing. (pp. 48-51)

Examining Puncture Resistance: Presents research confirming ACI 302 recommendations for minimum vapor-retarder thickness. (pp. 53-55)

SUCCESSFUL CONTRACTING

Recruiting Workers When Labor Is

Scarce: Ideas for finding and hiring workers in times of labor shortage. (p. 31)

SOLUTIONS

Concrete Basics: Curing Cylinders in Hot Weather (p. 57)

Concrete Perspectives: Can a Petrographer Determine Slump? (pp. 58-59)

Problem Clinic (pp. 60-61)

- Finishing Low-Slump Concrete
- Does Concrete Absorb Adhesive Moisture?
- Fly Ash and Bleeding
- Volcanic Eruptions on Concrete Surface

TROUBLESHOOTING

Exposed Reinforcing Steel (p. 74)

AUGUST

FEATURES

Contractors to Watch: Five contractors share unique strategies for building a successful business. (pp. 36-44)

All About Anchors: Introduces the various types of post-installed bonded and mechanical anchoring systems for concrete. (pp. 46-48)

Bracing for Speed: Describes how a reusable metal bracing system kept construction of riser seating for the Kansas City Speedway on the fast track. (pp. 50-51)

SUCCESSFUL CONTRACTING

Avoid the Hiring Pit: Presents strategies for conducting effective interviews. (p. 31)

SOLUTIONS

Decorative Concrete: Avoiding Surface Crusting (pp. 53-55)

Concrete Perspectives: What Surface Defects Require Repair? (pp. 57-59)

Problem Clinic (pp. 60-61)

- How Long a Wait to Paint?
- Compacting Trench Backfill
- WWF Through Joints?
- Definition of "Shingling"
- Dissolving "Hard As Steel" Concrete

TROUBLESHOOTING

Efflorescence (p. 82)

SEPTEMBER

FEATURES

Tips for Safe Pumping: Presents simple rules for safe boom-pump operation that can prevent serious injuries, equipment damage, and job delays. (pp. 28-33)

Tilt-Up City: Contractor Larry Clark describes the construction of Capital Centre, an all-tilt-up sports and entertainment facility in Lansing, Mich. (pp. 36-40)

Profiting from Safety: Shows how an effective safety program can reverse negative effects on the bottom line. (pp. 43-45)

SUCCESSFUL CONTRACTING

Taking Control: How contractors can use a weekly look-ahead schedule to take control of a project. (p. 25)

SOLUTIONS

Concrete Basics: Flash Set and False Set (pp. 46-47)

Concrete Perspectives: Synthetic Fibers and Welded Wire Fabric: Comparing Benefits (pp. 48-49)

Problem Clinic (pp. 52-53)

- Measuring Floor Curling
- Black Concrete
- Cause of Aluminum Pitting

TROUBLESHOOTING

Form Streaking and Sand Streaking (p. 66)

OCTOBER

FEATURES

Concrete Market Y2K: Estimates the total dollar value of cast-in-place concrete as well as the volume of concrete placed in footings, walls, slabs on grade, columns, and elevated slabs. (pp. 30-43)

Quick Fix: Highlights the benefits of using rapid-hardening-cement concrete for repair or rehabilitation of pavements, bridge decks, runways, and overlays. (pp. 45-49)

First-Aid Kits for Concrete: Describes how to use prepackaged mixtures to adjust concrete mixes in the field. (pp. 51-52)

SUCCESSFUL CONTRACTING

End-of-the-Year Rush: Strategies to help contractors cope with the rush at year's end without cutting corners. (p. 25)

SOLUTIONS

Decorative Concrete: Engraving Concrete (pp. 58-60)

Concrete Perspectives: Shotcrete Core Grading: Is It Working? (pp. 63-65)

Problem Clinic (p. 68)

- Acceptable Curling
- Crack Coverup
- Who Places Vapor Retarder?
- Sources for FPR Rebar

TROUBLESHOOTING

Popouts (p. 82)

NOVEMBER

FEATURES

Better from Above: A contractor uses a top-access bridge overhang forming system to speed construction while saving costs and improving worker safety. (pp. 32-36)

Forming the Gates of Time: Profiles the construction of two pairs of concrete walls that serve as gateways to a memorial at the site of the bombing of the Edward P. Murrah Federal Building in Oklahoma City. (pp. 38-42)

Combating Rebar Corrosion: Describes corrosion-control weapons that designers and contractors can add to their arsenal. (pp. 44-47)

Long Wait for Lightweight: This research shows that lightweight concrete dries more slowly than normal-weight concrete. (pp. 48-49)

SUCCESSFUL CONTRACTING

Profiting in a New Market: Factors con-

tractors should consider before expanding into new markets. (p. 29)

SOLUTIONS

Concrete Basics: Placing Flatwork in Fall (pp. 51-53)

Concrete Perspectives: Microwave Water-Content Testing: How Precise Is It? (pp. 55-57)

Problem Clinic (p. 59)

- Differences in Formed-Surface Finishes
- Fly Ash in Concrete for Floors
- Date and Number Stamp for Bridge
- Spray-Paint Removal

TROUBLESHOOTING

Joint Spalls (p. 74)

DECEMBER

FEATURES

2000 Pavement Awards: Profiles the 26 winners and finalists in the National Awards Program for Excellence in Concrete Pavement. (pp. 26-32)

Move Over, Round Dowels: A look at square and plate dowel systems that can transfer floor loads without restraining movement. (pp. 34-36)

Concrete Streets for Navajo Nation: In the fall of 1999, Ft. Defiance, Ariz., became the first town in Navajo Nation to replace potholed asphalt streets with concrete. (pp. 39-41)

Concrete Pump Attaches to Loaders: Describes a pump attachment for skid-steer loaders that's useful for concrete placements of less than 100 cubic yards. (p. 43)

SUCCESSFUL CONTRACTING

Are You Ready for 2001?: Five steps contractors can take to build a strategic business plan that leads to profitable growth. (p. 23)

SOLUTIONS

Decorative Concrete: Coloring Concrete Integrally (pp. 45-49)

Concrete Perspectives: Do Pan Floats Cause Blisters or Delaminations? (pp. 51-54)

Problem Clinic (p. 57)

- Vertical Rebar Placement in Footings
- Epoxy-Terrazzo Problem
- Does Aggregate Size Affect Concrete Shrinkage?

TROUBLESHOOTING

Honeycomb and Voids (p. 90)